Ground school lays the foundation for success in the field

By Darin Langerud

Each spring, before the start of the North Dakota Cloud Modification Project (NDCMP), when clouds are seeded over six western North Dakota counties, everyone involved in the project gathers in Bismarck for three days in May. The reason is an important one, integral to the success of any project; Ground School for the NDCMP.

The objectives of the NDCMP Ground School are many, but all are important. People with experience in field operations from both the ARB and Weather Modification, Inc., the NDCMP contractor, conduct the sessions. In addition, some of the people on the project each year have previous experience with cloud seeding, either in North Dakota, or from other projects in the United States, or other countries. Their experiences are also important sources of information and they are encouraged to participate and share their knowledge during the course of ground school.

All manner of items are discussed during the sessions. Technical information is presented concerning radar theory, cloud physics, and the project's cloud seeding hypothesis. Administrative presentations address personnel responsibilities, project policies, state rules and regulations, and proper documentation of project activities. Training is given regarding the operation and care of seeding and electronic equipment. Last, but certainly not least, are presentations



concerning safety, be it aircraft operations, radar, or chemical handling.

The NDCMP brings together people from many different places and backgrounds. One of the most important aspects of ground school is that all the project personnel have the opportunity to meet and get to know each other before they work together. During the 92-day project, they must work as a team with a common goal; increasing rainfall and decreasing hail damage. Effective teamwork requires many things, perhaps the most important of which is communication. Since the NDCMP is a twenty-four hours a day, seven days a week operation, everyone must be aware and informed of what is happening. The channels of communication are wide open, from the interns in the field to the project managers, providing the best

foundation for a successful project.

Each year the ground school sessions are reviewed and updated to include any changes in our knowledge of storms, improvements in seeding agents, or upgrades in computer technology. The evaluations of the NDCMP tell us that the effort is paying off, literally, through a 45 percent reduction in crop-hail damage and a 10 percent increase in rainfall. Through better training, and further research, we should even be able to improve those numbers in the future.

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